

### **REMARKS**

Responsive to the Office Action mailed July 27, 2005, Applicants have studied the Examiner's comments and the cited art. Claims 43, 44, and 46-74 are currently pending; following entry of this Amendment, claims 43-44, 46, 48-54, 56-61, 64-68, and 70-87 are pending. In view of the following remarks, Applicants respectfully submit that the application is in condition for allowance.

#### **Amendments**

Applicants have amended independent claim 43 to incorporate the limitation of now-cancelled allowable dependent claim 62. Applicants have cancelled claim 63, as duplicative of claim 44. Applicants have amended claims 44 and 65 for consistency with newly amended claim 43, from which claims 44 and 65 depend.

Applicants have amended independent claim 46 to incorporate the limitations of now-cancelled dependent claim 47. Applicants have also amended independent claim 48 to incorporate the limitation of now-cancelled allowable dependent claim 69.

Applicants have amended independent claim 52 to incorporate the limitations of now-cancelled allowable claim 55.

Applicants have further added new independent claims 75-87.

#### **Claim Rejections Under 35 U.S.C. § 102**

Claims 48-51, 70, and 74 are rejected under 35 U.S.C. § 102(b) as being anticipated by Harrison, U.S. Patent No. 3,638,721. Only claim 48 is in independent form. Applicants respectfully traverse the rejections.

With respect to independent claim 48, Applicants have amended the claim to incorporate the limitations of now-cancelled independent claim 62, which the Office Action admitted contained allowable subject matter if rewritten in independent form. For at least this reason, Applicants respectfully request withdrawal of the rejections.

Rejected dependent claims 49-51 and 70-74 depend from allowable claim 48 and are therefore also allowable. For at least this reason, Applicants respectfully request withdrawal of the rejections.

New independent claim 77 incorporates the limitations of independent claim 48 prior to entry of this Amendment together with the limitations of dependent claims 70 and 73. The Office Action admitted that claim 73 contained allowable subject matter if rewritten in independent form. For at least this reason, Applicants respectfully submit new independent claim 77 is allowable.

New independent claim 78 incorporates the limitations of independent claim 48 prior to entry of this amendment together with the limitations of dependent claim 51, together with a limitation that the sealing member seals the tubular while drilling:

Harrison fails to disclose an apparatus for sealing the tubular while drilling, as in Applicant's claimed subject matter. Instead, Harrison suggests that the sealing element 40 is not designed to allow passage of drill collars through the sealing element while drilling. Drill collars are typically a length of thick-walled tubular pieces placed in a drill string to provide weight on bit for drilling. As such, they are typically larger in diameter than regular drill stem pipe, and are significantly longer than tool joints used to connect drill stem pieces. Harrison suggests that drill collars do not pass through the sealing element, even when sealing element 40 is not engaged with the drill pipe, noting that "Drill collars on drill pipe 20 raise sealing element 40 and bearing element 41 out of housing 42 when coming out of the hole with drill pipe 20."<sup>1</sup> If a drill collar would not pass through the illustrated sealing element 40 when coming out of the hole, a drill collar would not pass through sealing element 40 when going downhole. Even tool joints are not disclosed as passing through the sealing element 40 when the sealing element 40 is sealed to the drill pipe. All that Harrison discloses is that the sealing element 40 permits passage of tool joints "[w]hen in subsea position."<sup>2</sup> Furthermore, the sealing element 40, bearing element 41, and retaining plate 43 are "run and retrieved on drill pipe 20,"<sup>3</sup> which suggests that vertical movement of the drill pipe to these three elements is not expected when in the sealed position. Nothing in Harrison discloses or suggests that a tool joint can pass through the sealing element 40 while sealing.

One reference to vertical movement of the drill string in the 1969 filed Harrison only states, "Vertical movement of the drill string in offshore operations may be accommodated for in conventional ways."<sup>4</sup> Such movement of tool joints and drill collars would be required *while drilling*, and Applicants' claimed subject matter recites the sealing member sealing the tubular (which would include vertically moving the drill stem with tool joints and drill collars) while drilling. For these reasons, Applicants respectfully request withdrawal of the rejections.

#### **Claim Rejections Under 35 U.S.C. § 103**

Claims 43, 46–54, 56–61, 64, 70, and 74 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the April 1998 Offshore Drilling with Light Weight Fluids Joint Industry Project Presentation ("Reference II") in view of Harrison, U.S. Patent No. 3,638,721. Only claims 43, 46, 48, and 52 are in independent form. Applicants respectfully traverse the rejections. Applicants have cancelled claim 47.

With respect to independent claim 43, Applicants have amended claim 43 to incorporate the limitations of now-cancelled dependent claim 62, which the Office Action admitted

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<sup>1</sup> Col. 2, lines 66–68.

<sup>2</sup> Col. 2, lines 65–66.

<sup>3</sup> Col. 2, lines 64–65.

<sup>4</sup> Col. 1, lines 18–21.

contained allowable subject matter. For at least this reason, Applicant respectfully requests withdrawal of the rejection.

With respect to independent claim 46, Applicants have amended claim 46 to incorporate the housing limitations of now-cancelled dependent claim 47. The Office Action gives no ground for rejection, other than the summary listing of claim 47 in the list of claims rejected over Reference II and Harrison. Therefore, Applicants cannot determine the Office Action's position on the rejection of now-cancelled claim 47. Nevertheless, Applicants respectfully submit that as amended by the incorporation of the limitations of claim 47, independent claim 46, which includes both "an outer member" and "a housing," contains allowable subject matter.

The Office Action admits that "Reference II does not disclose the structure of the rotating head,"<sup>5</sup> and attempts to fill the gap by combining Reference II with the method and apparatus of Harrison.<sup>6</sup> Even if there is a motivation to combine the disclosures of the April 1998 Reference II and Harrison, filed almost thirty (30) years before, which Applicants do not admit, Reference II and Harrison fail to teach or suggest a rotating control head in which a housing receives an inner member and an outer member as in Applicants' claimed subject matter. Harrison fails to disclose such a rotating control head. In particular, the bearing element 41 rotates within a walled housing 42. Walled housing 42 is not disclosed as received in a housing as in Applicants' claimed subject matter, nor is there any suggestion that an additional housing exterior to walled housing 42 would be desirable or advantageous. Nor is there any suggestion of an outer member received in walled housing 42 within which the bearing element 41 would rotate. Therefore, Reference II and Harrison, alone and in combination, fail to teach or suggest all of the elements of Applicants' claimed subject matter. For these reasons, Applicants respectfully request withdrawal of the rejection.

Rejected dependent claims 61 and 64 depend from allowable independent claim 43 and are therefore also allowable. For at least this reason, Applicants respectfully request withdrawal of the rejections.

With respect to independent claim 48, as explained above, claim 48 as amended contains subject matter the Office Action admitted is allowable. For at least this reason, Applicants respectfully request withdrawal of the rejection.

Rejected dependent claims 49-51 and 70-72, and 74 depend from allowable independent claim 48 and are therefore allowable. For at least this reason, Applicants respectfully request withdrawal of the rejections.

With respect to independent claim 52, Applicants have amended claim 52 to incorporate the limitations of now-cancelled dependent claim 55, which the Office Action admitted contained allowable subject matter. For at least this reason, Applicants respectfully request withdrawal of the rejection.

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<sup>5</sup> Paper 07142005, p. 3.

<sup>6</sup> *Id.*

Rejected dependent claims 53, 54, and 56-60 depend from allowable independent claim 52 and are therefore also allowable. For at least this reason, Applicants respectfully request withdrawal of the rejections.

With respect to new independent claim 75, claim 75 incorporates the limitations of claim 43 prior to entry of this Amendment and the limitation of claim 44, prior to entry of this Amendment, which the Office Action admitted contained allowable subject matter. For at least this reason, Applicants respectfully submit new independent claim 75 is allowable.

With respect to new independent claim 76, claim 76 incorporates the limitations of independent claim 43 prior to entry of this Amendment together with the limitations of dependent claim 65 prior to entry of this Amendment, which the Office Action admitted contained allowable subject matter. For at least this reason, Applicants respectfully submit new independent claim 76 is allowable.

With respect to new independent claim 77, claim 77 incorporates the limitations of independent claim 48 prior to entry of this Amendment together with the limitations of dependent claims 70 and 73 prior to entry of this Amendment, which the Office Action admitted contained allowable subject matter. For at least this reason, Applicants respectfully submit new independent claim 77 is allowable.

#### **Claim Objections**

Dependent claims 44, 55, 62, 63, 65-69, and 73 are objected to as depending upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant has cancelled claims 55, 62, 63 and 69.

Objected dependent claims 44, 65-68, and 73 depend from allowable independent claims 43 and 48 and are therefore also allowable. For at least this reason, Applicants respectfully request withdrawal of the objections.

#### **Other New Claims**

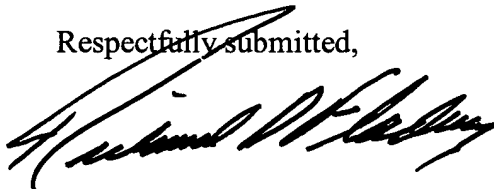
Applicants have also added claims 79 to 87 to provide the varied scope of coverage to which Applicants are entitled.

**CONCLUSION**

Applicants respectfully submit that all issues and rejections have been adequately addressed, that all claims are allowable, and that the case should be advanced to issuance.

If the Examiner has any questions or wishes to discuss the claims, Applicants encourage the Examiner to call the undersigned at the telephone number indicated below.

Respectfully submitted,



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